

CLAIMS

WE CLAIM:

1. A mounting assembly for fastening a device housing onto a panel wall defining a front surface, a rear surface, and an opening extending therethrough for receiving the housing, the mounting assembly comprising:
 - a housing including at least one wall sized to extend through the opening;
 - a slot extending through the wall that is sloped from a distal location to a proximal location with respect to the panel wall; and
 - a clamp including:
 - a clamp body defining a first surface and a second surface;
 - a shaft extending outwardly from the clamp body, wherein the shaft defines a first distance to the first surface that is less than a second distance defined between the shaft and the second surface; and
 - a flange extending outwardly from the shaft and sized to be received in the slot;wherein the clamp is configured to fasten the housing to the panel wall by inserting the flange into the slot, translating the clamp along the slot until the first surface is disposed proximal the panel wall, and rotating the clamp relative to the panel wall until the second surface engages the panel wall.
2. The mounting assembly as recited in claim 1, wherein a curved surface joins the first surface to the second surface, and wherein the curved surface defines a third distance to the pin that is between the first and second distances.
3. The mounting assembly as recited in claim 1, wherein the first surface comprises an end wall.
4. The mounting assembly as recited in claim 1, wherein the second surface is a side wall
5. The mounting assembly as recited in claim 1, wherein the clamp further comprises at least one friction member extending inwardly from the flange.

6. The mounting assembly as recited in claim 1, wherein the friction member defines a distance to the clamp body that is less than a thickness of the side wall.

7. The mounting assembly as recited in claim 1, wherein the friction member engages the side wall when the clamp is rotated.

8. The mounting assembly as recited in claim 7, wherein the slot comprises a plurality of engagement locations separated by adjacent teeth operable to engage the shaft.

9. The mounting assembly as recited in claim 8, wherein the shaft is cylindrical and wherein the engagement locations define arced surfaces.

10. The mounting assembly as recited in claim 1, wherein a notch is formed in the clamp to gauge clamp position within the slot.

11. The mounting assembly as recited in claim 1, wherein the slot further comprises a keyhole operable to receive the flange.

12. The mounting assembly as recited in claim 1, wherein the device is an industrial control device.

13. The mounting assembly as recited in claim 1, wherein the device is a human-machine interface.

14. A method for fastening an industrial control device housing onto a panel wall defining a front surface, a rear surface, and an opening extending therethrough for receiving the housing, the method comprising:

A) providing a housing including at least one side wall sized to extend through the opening, and a slot extending through the side wall that is sloped from a distal location to a proximal location with respect to the panel wall;

B) a clamp including:
i. a clamp body defining a first surface and a second surface;
ii. a shaft extending outwardly from the clamp body, wherein the shaft defines a first distance to the first surface that is less than a second distance defined between the shaft and the second surface; and

iii. a flange extending outwardly from the shaft and sized to be received in the slot;

C) inserting the flange through the slot such that the first surface is separated from the panel wall;

D) translating the flange along the slot until the first surface is disposed proximal the panel wall; and

E) rotating the clamp until the second surface abuts the panel wall.

15. The method as recited in claim 14, wherein step (C) further comprises inserting the flange through a keyhole formed in the slot that is sized to receive the flange.

16. The method as recited in claim 14, wherein step (D) further comprises translating the flange between engagement locations that are separated by inwardly extending teeth.

17. The method as recited in claim 14, wherein step (E) further comprises engaging a friction member with the side wall.

18. The method as recited in claim 14, wherein step (E) further comprises engaging a curved surface with the panel wall, wherein the curved surface is positioned at an interface between the first and second surfaces.